SPYWOLF

Security Audit Report

Completed on
March 28, 2023

OVERVIEW

This audit has been prepared for **SamurAI** to review the main aspects of the project to help investors make make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

"

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

– SPYWOLF Team –

"

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SamurAI

PROJECT DESCRIPTION

According to their website:

Based on your hourly buys you will compete with other buyers to win the SamurAi of the hour.

Samurai will earn a 2% commission on all sells made during the following hour until the next round commences.

Release Date: Launching in March, 2023
Category: AI

01

CONTRACT INFO

Token Name
Samura DAO

Symbol
Samurai

Contract Address
0x932696c0fb1cc408b4461b978e397f8db98f67b4

Network
Arbitrum

Language
Solidity

Deployment Date
March 28, 2023

Verified?
Yes

Total Supply
100,000,000

Status
Not launched

TAXES

Buy Tax
30%

Sell Tax
20%

*Taxes can be changed in future

Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

02

TOKEN TRANSFERS STATS

Transfer Count	1
Uniq Senders	1
Uniq Receivers	1
Total Amount	100,000,000 SamurAi
Median Transfer Amount	100,000,000 SamurAi
Average Transfer Amount	100,000,000 SamurAi
First transfer date	03-28-2023
Last transfer date	03-28-2023
Days token transferred	1

SMART CONTRACT STATS

Calls Count	1
External calls	1
Internal calls	0
Transactions count	1
Uniq Callers	1
Days contract called	1
Last transaction time	Mar-28-2023 01:06:59 AM +UTC
Created	Mar-28-2023 01:06:59 AM +UTC
Create TX	0x93554f76f478650fa82ae3e325d18f3aa 0e794d2a9078a256c377b71bb81dfc9
Creator	0x96085fb2323e4906dc6c0441b9d4d7a 391c32e6c

VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed

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THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

FOUND THREATS

⚠️ High Risk

Owner can set buy/sell fees up to 100%.
When fees are above 0, there will be certain amount of tokens that will be deducted from every transaction that users make.
Deducted amount will be as much as the fees % from total amount that user had bought, sold and/or transferred.

```
function resetFees(
    uint256 buyDAO,
    uint256 sellDAO,
    uint256 sellSamuri
) external onlyOwner {
    buyDAOFees = buyDAO;
    sellDAOFees = sellDAO;
    sellSamuraiFees = sellSamuri;
}
```

- Recommendation:
  - Considered as good tax deduction practice is buy and sell fees combined not to exceed 25%.
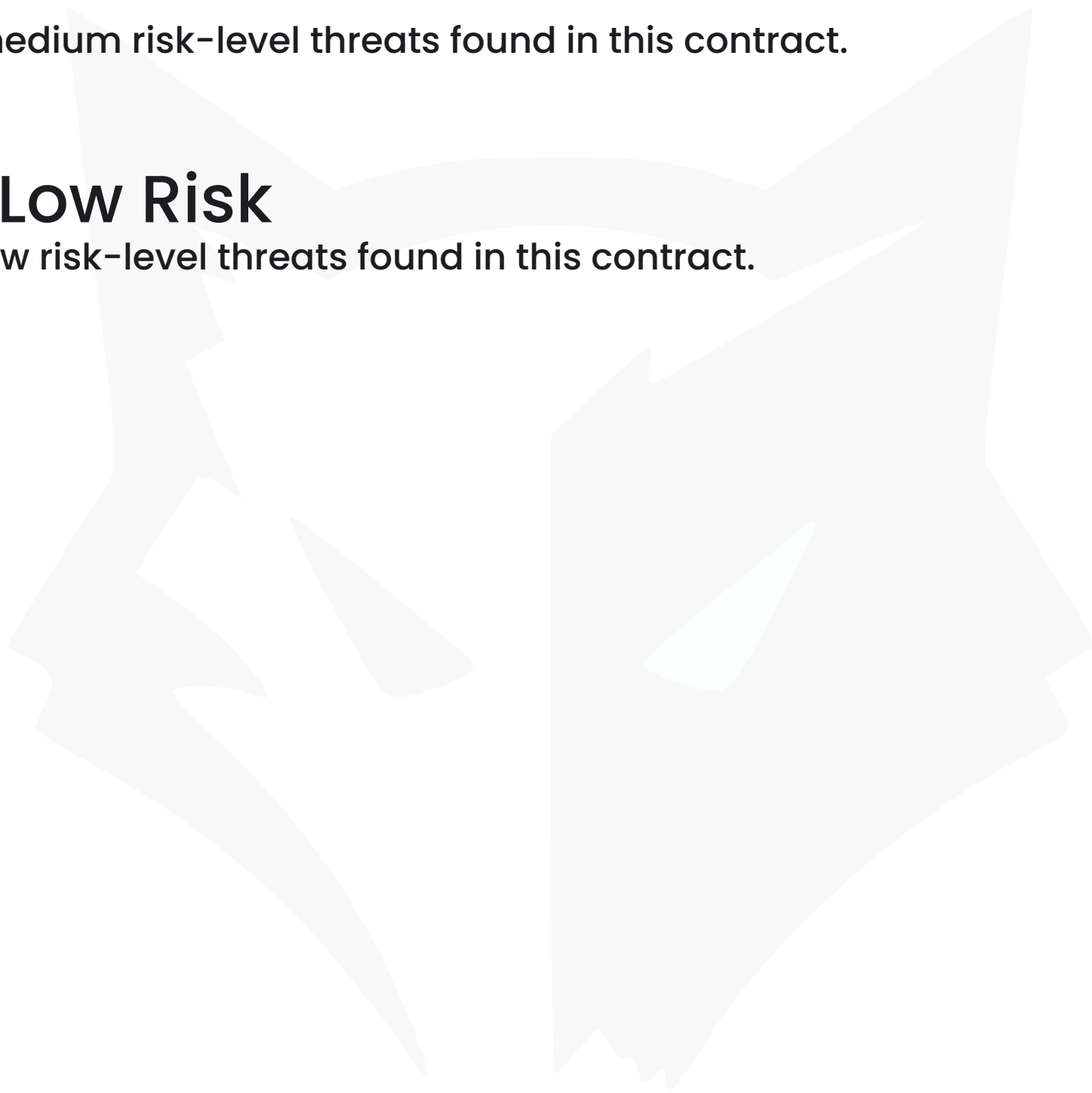
06-A

FOUND THREATS

⚠️ Medium Risk

No medium risk-level threats found in this contract.

⚠️ Low Risk

No low risk-level threats found in this contract.

06-B

FOUND THREATS

ℹ️ Informational

Owner can exclude address from fees.
When address is excluded from fees, the user will receive the whole amount of the bought, sold and/or transferred tokens.

```solidity
function excludeFromFees(
    address account,
    bool excluded
) external onlyOwner {
    _isExcludedFromFees[account] = excluded;
}
```

Owner can withdraw any tokens from the contract.
When this function is present, in cases tokens sent into the contract by mistake or purposefully, contract's owner can retrieve them.

```solidity
function forceSwap() external {
    require(_msgSender() == _DAO, "Only DAO can call this function");

    uint256 contractTokenBalance = balanceOf(address(this));
    _swapAndSendFees(_DAO, contractTokenBalance);

    if (address(this).balance > 0) {
        payable(_DAO).transfer(address(this).balance);
    }
}
```

ℹ️ Informational

Owner can change each samurai round duration without limits.
Current samurai round duration is 1 hour.

This is the time that address became samurai for and receive the
samurai tax portion (currently 2% swapped in eth) from each sell.
If the duration for current address set as samurai is over and there is no
other address set as next samurai, the samurai become the _DAO
address (0x64eb584CEfCF087Fe6f500c9A5acF158BB5ea6D9)

Samurai system explanation:
When users buy tokens, they compete to become the next Samurai.
Users set as current Samurai will receive the samurai fees (2%) from
each sell in ETH tokens.
User can become Samurai if he/she buy more tokens with one
transaction than the amount that current next Samurai bought.
Once current round time elapses, the address set as next Samurai
become the current samurai and will receive the samurai fees as ETH
for the round duration time.

```
uint256 public sellSamuraiFees = 2;
function changeRoundDuration(uint256 newDuration) external {
    require(_msgSender() == _DAO, "Only DAO can call this function");

    _roundDuration = newDuration;
}
```

RECOMMENDATIONS FOR
GOOD PRACTICES

1. Consider fundamental tradeoffs

2. Be attentive to blockchain properties

3. Ensure careful rollouts

4. Keep contracts simple

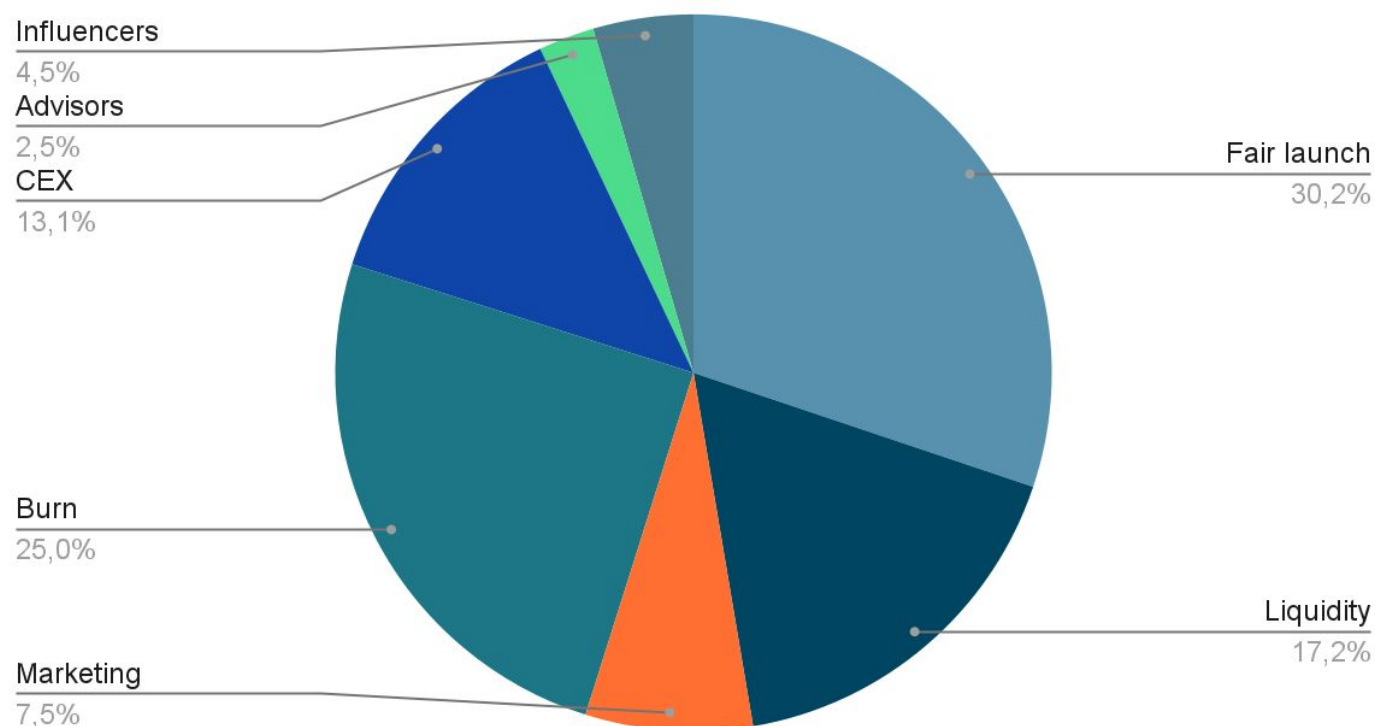5. Stay up to date and track development

SamurAI
GOOD PRACTICES FOUND

✔ The owner cannot stop or pause the contract

✔ The owner cannot set a transaction limit lower than 1% of total supply.

✔ The smart contract utilizes "SafeMath" to prevent overflows

The following tokenomics are based on the project's website:

- 30% - Fair launch
- 17.1% - Liquidity
- 7.5% - Marketing
- 24.9% - Burn
- 13% - CEX
- 2.5% - Advisors
- 0.5% - Airdrop
- 4.5% - Influencers & Partnerships

Tokens distribution

Influencers 4,5%
Advisors 2,5%
CEX 13,1%
Burn 25,0%
Marketing 7,5%
Fair launch 30,2%
Liquidity 17,2%

THE TEAM

The team has privately doxxed to PINKSALE

https://pinksale.notion.site/SamurAi-KYC-Verification-da57f0b84b35483095833e07035c5dde

SPYWOLF.CO

Website URL
https://samurai.tax/

Domain Registry
https://www.namecheap.com/

Domain Expiration
Expires on 2024-02-24

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

Design
Single page design, appropriate color scheme and graphics.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
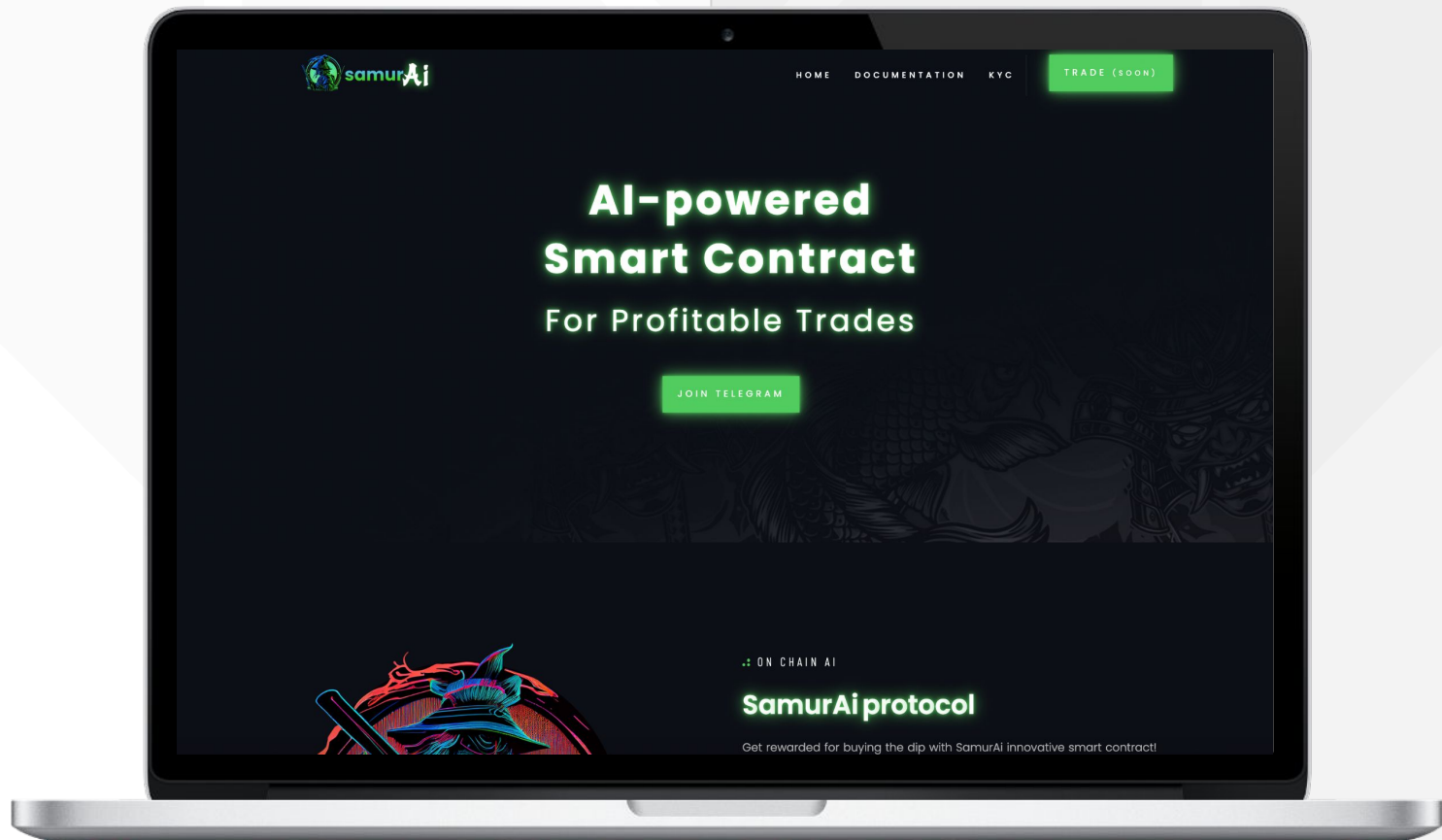Information can be found in the project's documentation page.

Roadmap
Yes, goals set without time frames.

Mobile-friendly?
Yes

samurAi
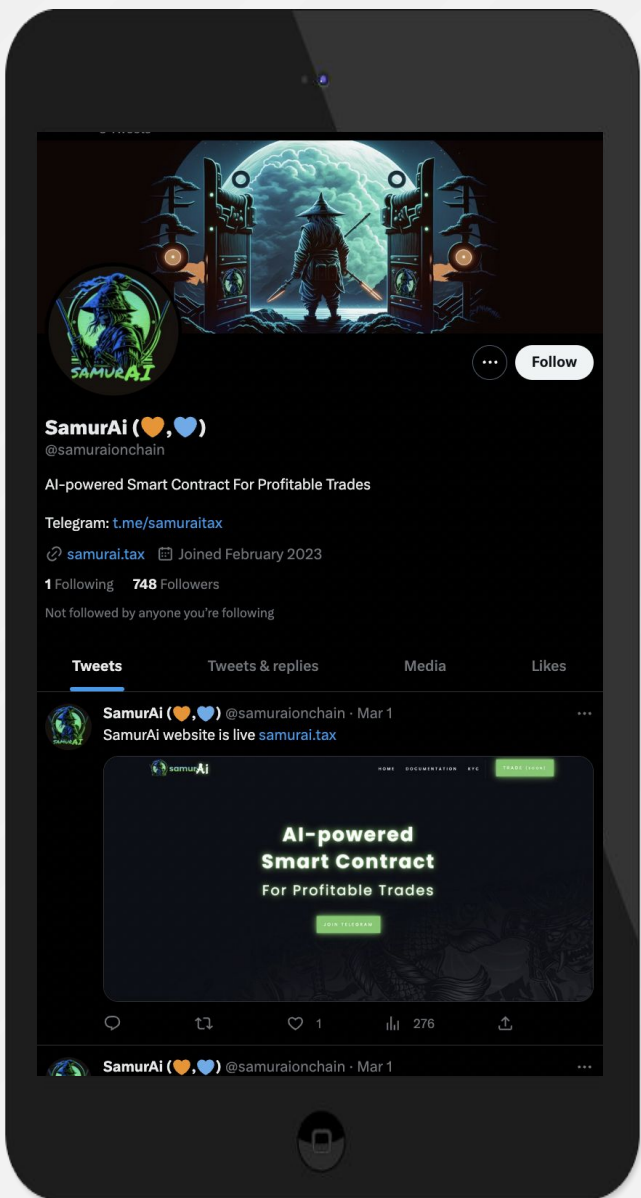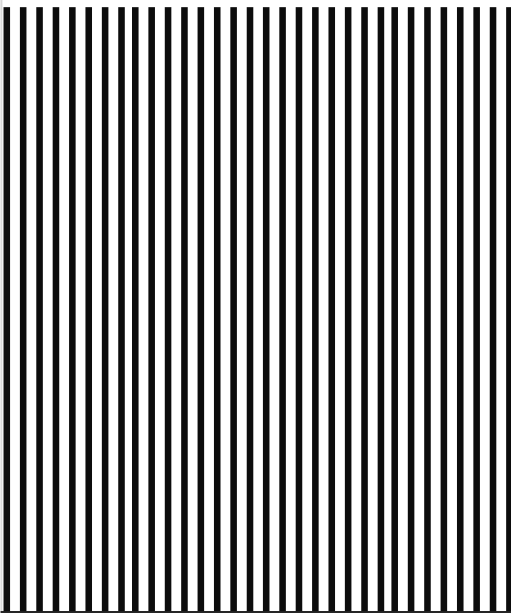
HOME   DOCUMENTATION   KYC   TRADE (SOON)

AI-powered
Smart Contract
For Profitable Trades

JOIN TELEGRAM

.: ON CHAIN AI

SamurAi protocol

Get rewarded for buying the dip with SamurAi innovative smart contract!

samurai.tax

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SOCIAL MEDIA

& ONLINE PRESENCE

Project's social media pages are active with daily posts from devs and mods.

SamurAi (🧡,💙)
@samuraionchain

AI-powered Smart Contract For Profitable Trades

Telegram: t.me/samuraitax

🔗 samurai.tax   📅 Joined February 2023

1 Following   748 Followers

Not followed by anyone you're following

Tweets   Tweets & replies   Media   Likes

SamurAi (🧡,💙) @samuraionchain · Mar 1
SamurAi website is live samurai.tax

AI-powered Smart Contract For Profitable Trades

💬   🔁   ♡ 1   📊 276   ⬆️

SamurAi (🧡,💙) @samuraionchain · Mar 1

Twitter

@samuraionchain

- 7 477 followers
- Posts daily
- Active

Discord

- Not available

Telegram

@samuraionchain

- 10 420 members
- Active members
- Active mods

Medium

- Not available

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SPYWOLF
CRYPTO SECURITY

Audits | KYCs | dApps
Contract Development

ABOUT US

We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

- ✔ **OVER 400 SUCCESSFUL CLIENTS**

- ✔ **MORE THAN 500 SCAMS EXPOSED**

- ✔ **MILLIONS SAVED IN POTENTIAL FRAUD**

- ✔ **PARTNERSHIPS WITH TOP LAUNCHPADS, INFLUENCERS AND CRYPTO PROJECTS**

- ✔ **CONSTANTLY BUILDING TOOLS TO HELP INVESTORS DO BETTER RESEARCH**

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.